Shared Vision Planning

to Improve

Technical and Policy Collaboration
Many Water Plan Activities Require Data / Data Integration

- Water portfolios of current conditions
- Multiple future baseline scenarios
- Response packages / evaluation criteria
- Climate change adaptation strategies
- Flood management
- Regional water planning
Questions for the Water Plan

Evaluation Criteria

What do we want to know? (Objectives)

Metric

What we are measuring? (Indicators)

Measure

What is the quantity measured?

How are we measuring progress?
Why the Water Plan is Pursuing Shared Vision Planning

- Better integration and consistency with other planning efforts
- Obtain consensus on quantitative deliverables
- Build common conceptual understanding of the water management system
- Improve transparency of Water Plan information
Longer Term Deliverables
(Update 2013 or 2018)

- Statewide and regional system schematics
- Framework for integrating statewide and regional water planning
- Documented databases on common technical issues
- Visualization displays for policy folks
- Survey of technical & collaborative efforts
  - (Texas, South Florida, MWD, etc.)
Longer Term Deliverables
(Update 2013 or 2018)

- Synthesis of regional information
  - Urban Water Management Plans
  - Integrated Regional Water Management Plans
- CWEMF Strategic Analysis Framework
- CWEMF Modeling Standards and Protocols
- HEC model integration efforts
  - Watershed Analysis Tool (HEC WAT)
Deliverables for Update 2009
Using WEAP

- DWR is using WEAP platform for Update 2009 to quantify future scenarios and water management responses
  - Successful WEAP application for IEUA
  - Contracting mechanism and expertise in place
  - Graphical nature supports collaboration
  - Shorter learning curve than alternatives
CWP Update 2009 Seeks To Build On 2005 Analysis

- Expand scenarios to consider:
  - water supply
  - climate change
  - water quality
  - flood issues
- Refine scenario narratives
- Support the evaluation of response packages against scenarios
High Level Analysis at Hydrologic Region Scale

Linked Supply & Demand
- Demand Node
- Supply Node
- Transmission Link
More Detailed Analysis for Sacramento and San Joaquin HR’s

- Comprehensive Representation of Sacramento System
  - 71 Catchments
  - 32 Rivers
  - 7 Groundwater Basins
  - 8 Diversions (e.g. Yolo)
  - 30 Urban/Ag Demands
  - 6 Ag Crop types
  - Rice Ponding/Storage
  - Instream flow Requirements
  - Delta Salinity Dynamics
### WEAP Has Some Limitations

<table>
<thead>
<tr>
<th>Component</th>
<th>Limitations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rainfall-Runoff</td>
<td>Parameters require calibration/validation</td>
</tr>
<tr>
<td></td>
<td>Land/use change is exogenous</td>
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<tr>
<td></td>
<td>Monthly Model/ No Flood Peaks</td>
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<tr>
<td>Stream Hydrology</td>
<td>No Explicit Routing</td>
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<tr>
<td></td>
<td>Demands met at each timestep</td>
</tr>
<tr>
<td>Reservoirs</td>
<td>Rules are stylized and relatively simple</td>
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<tr>
<td></td>
<td>Doesn’t consider year-to-year operations</td>
</tr>
<tr>
<td>Groundwater</td>
<td>No local cones of depression</td>
</tr>
<tr>
<td></td>
<td>No exchange between GW objects</td>
</tr>
<tr>
<td>Agriculture</td>
<td>No explicit irrigation technologies</td>
</tr>
<tr>
<td></td>
<td>Cropping pattern changes are entered exogenously</td>
</tr>
<tr>
<td></td>
<td>Irrigation strategy depends on availability</td>
</tr>
<tr>
<td></td>
<td>No regional irrigation rights</td>
</tr>
<tr>
<td>Urban Demand</td>
<td>No regional conservation measures</td>
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<tr>
<td></td>
<td>Conservation is exogenously defined</td>
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<tr>
<td>Flood Conveyance</td>
<td>Monthly time-step, no-peak flows.</td>
</tr>
<tr>
<td>Canals and Diversion</td>
<td>Transmission losses are generic</td>
</tr>
</tbody>
</table>
Mandated Documents & Due Dates

- Dec. 2009 – Final Water Plan
Why the Water Plan is Pursuing Shared Vision Planning

- Better integration and consistency with other planning efforts
- Obtain consensus on quantitative deliverables
- Build common conceptual understanding of the water management system
- Improve transparency of Water Plan information

- How can SVP concepts be tested during development of Water Plan Update 2009?
- How can SVP concepts be applied to improve the long term development of analytical tools and data?
Reference Information

- Draft Assumptions and Estimates for Update 2009
  - [http://www.waterplan.water.ca.gov/cwpu2009/ae](http://www.waterplan.water.ca.gov/cwpu2009/ae)
  - Includes narratives for 3 scenarios

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Breakout Groups

- Groups Organized Around Topic 1
  - Recommendations for how to apply SVP in State Water Plan 2009
- Groups Organized Around Topic 2
  - Recommendations for how to apply SVP concepts in future regional and state water planning
Breakout Group Instructions

- Pick someone from your group to serve as the spokesperson for your group
- You have been assigned a staff person who will serve as a flip chart “recorder” for your group
  - The recorder is a “servant” of the group – provide guidance on how much/how little and wording of the summary
- Be ready to give a ___ minute report at ____ PM
Breakout Instructions
State Water Plan 2009

● What are the opportunities for applying SVP concepts in the WEAP modeling, given the constraints of time and contracts?

● Which of these opportunities have the greatest potential for improving WEAP modeling?

● Which of these opportunities have the greatest potential for teaching us something about how to apply these concepts in future water planning efforts?

What role should CWEMF and SWAN play to help DWR implement SVP?
Breakout Instructions
Longer Term Use of SVP

- What is your vision for what role stakeholders could play in development and use of analytic tools for future water planning?
- Based on this vision, what are the opportunities for use of SVP concepts that have the greatest potential for improving the utility of, and confidence in, our analytic tools?
- Which of these opportunities has the highest priority for improving water planning?
- Which of these opportunities should be initiated during the SWR 2009 Update so that we can begin learning how best to apply these concepts?
- What role should CWEMF and SWAN play to help DWR implement SVP?
Workshop
Conclusion
Next Steps for Shared Vision Planning Activities

- Develop Recommendations through SWAN / CWEMF
- Topic Specific Meetings
- Present Recommendations at All Forums Meetings
- Present Recommendations to Water Plan Advisory Committee
- Recommendations form core of “Integrated Data and Analysis Chapter

2008

April - July

June

July

August
Next Steps for Shared Vision Planning Activities

2008

- Develop Water Plan Public Review Draft

2009

- Iterate on Integrated Data and Analysis Chapter and Quantitative Deliverables
- Develop Water Plan Final Report

Oct - Dec

Jan - Sept

Oct - Dec

Oct - Dec